Amendments to the Claims

Please cancel Claims 7-34. Please amend Claims 1-6. The Claim Listing below will replace all prior versions of the claims in the application:

Claim Listing

- 1. (Currently Amended) A method of sorting <u>isolating</u> undifferentiated cells, wherein said method comprises contacting undifferentiated cells with an antibody to a cell-surface antigen, and <u>that primarily differentiate into an epiblast of a blastocyst from a population of undifferentiated cells comprising:</u>
 - (a) sorting the <u>population of</u> undifferentiated cells according to the presence or absence of the <u>binding to the antibody PECAM-1 on the surface of said cells; and</u>
 - (b) collecting the undifferentiated cells that express PECAM-1 on their cell surface, wherein the undifferentiated cells collected differentiate into an epiblast of a blastocyst at a higher rate than control undifferentiated cells.
- 2. (Currently Amended) The method of claim 1, wherein the cell-surface antigen is selected from the group consisting of PECAM-1 the population of undifferentiated cells are mouse cells and said cells further express SSEA-1, SSEA-3, and SSEA-4.
- 3. (Currently Amended) The method of claim 1, wherein the <u>population of</u> undifferentiated cells are embryonic stem (ES) cells derived from mammals or embryonic germ (EG) cells derived from mammals.
- 4. (Currently Amended) The method of claim 1, wherein the <u>population of</u> undifferentiated cells are transgenic <u>mouse cells</u>.
- 5. (Currently Amended) The method of claim [[2]] 1, wherein undifferentiated cells that bind to the presence or absence of PECAM-1 on the surface of the undifferentiated cells is detected by the binding of an antibody to PECAM-1 is sorted out.

- 6. (Currently Amended) The method of claim [[5]] 2, wherein undifferentiated cells that bind to both the expression of SSEA-1 on the surface of said mouse cells is detected by the binding of an antibody to PECAM-1 and an antibody to SSEA-1 are sorted out.
- 7.-34. Canceled.